

## BIG MOTOR EXPORTS URGED BY JORDAN

Warns Motor Men English and French Plan Mass Production.

American motor car manufacturers who are awake to the possibilities of foreign markets have an opportunity to become the prime movers in establishing those international relations which will give to America the dominant position in world commerce she is destined to occupy.

England, France and Japan, who will be her chief rivals in the contest for commercial supremacy, are looking to the automobile industry for leadership, because transportation is regarded as the most necessary factor in the post-war development of the trade of the world.

This is the opinion of Edward S. Jordan, who has returned from Europe after an investigation of the motor car industry in England and France.

England now is rapidly making plans for what they call "mass production" of motor cars, while the French makers are hoping to compete with the American makers by producing automobiles in sufficient quantities to meet the American product in foreign markets.

Before the war it was the policy of the French and English makers to build motor cars largely of special design to suit the limited patronage of only the wealthier classes. The inevitable result of this policy is shown in the fact that on January 1, 1917, only 437,558 motor cars were in use in Europe. On this date there were in use in the entire world, exclusive of the United States, only 712,245.

All of the leading manufacturers in England and on the Continent were enabled with the aid of their Government to make large additions to their plants and equipment for the production of war necessities, and this equipment is being rapidly turned toward the production of automobiles.

It is significant that these countries are looking to America for standards of "quantity production," for upon a full realization of these standards depends their future prosperity. Since the day the armistice was signed the most progressive British and French makers have been equipping their plants and training their men in imitation of American methods.

Various obstacles, however, stand in the way of these nations to retard their rapid growth. The devastated iron and coal mines, the shortage of castings brought about by a prolonged strike of British foundrymen, the lack of factories to produce individual units and the ever increasing demands for higher wages are factors which must be considered before a maximum output of European cars can be realized, and it is safe to say that it will be some time before these problems will be solved. Since the English standard of wages is rapidly approaching that of the United States the competition of cheaper labor will soon be eliminated and the British manufacturer will be on a par with the American.

The Olympia Motor Show held in London was undoubtedly the largest display of its kind ever held in the world. Many new models were shown, but none of the manufacturers has been able up to this time to get these new models into production on a quantity basis. The very light car heralded as a competitor of the cheaper American car has not been able to negotiate satisfactorily the American roads, for it was constructed to cover the paved roads of Europe.

A very friendly feeling for America is exhibited throughout England and France.

While the deterrent effects of the war upon these countries have not been exaggerated, the people are awake to the necessity of hard work and economy to regain their position, and they are looking to America for guidance in the choice of methods by which this may be accomplished.

### FORERUNNERS OF NEW ERA.

Cole Aero-Eight Herald a New Vogue in Design.

The Cole Aero-Eight models on exhibition at the Automobile Show not only herald a new vogue in motor car design but represent a new and expanding era in motor car performance.

This latter fact has been proved to the satisfaction of thousands of owners, who after more than a year of experience, vouch for the power, speed, economy, comfort and dependability of this, the original aerotype car.

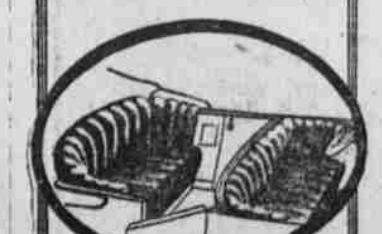
Among the Cole Aero-Eights distinctive claims to recognition in the motor world are its increased tire mileage, its fuel economy, its power, speed and acceleration, its mechanically correct body, its shock absorbing frame, its ability to operate with maximum efficiency even with low grades of fuel, and its aerotype design.

The original design equipment on the Cole Aero-Eight is capable of 15,000 miles or more, an unprecedented achievement among motor cars.

A year of tests has proved that an average of from twelve to fourteen miles per gallon of gasoline in an eighty horse power, eight cylinder motor is a consistent reality of the Aero-Eight. Its great reserve power, speed, acceleration and smoothness of operation is due not only to the increased efficiency of the motor but to aerotype engineering principles embodied in the car as a whole. By reason of these the Cole Aero-Eight, weighing only 3,450 pounds, travels at a speed of seventy miles an hour with no greater effort and vibration than if it were travelling thirty-five.



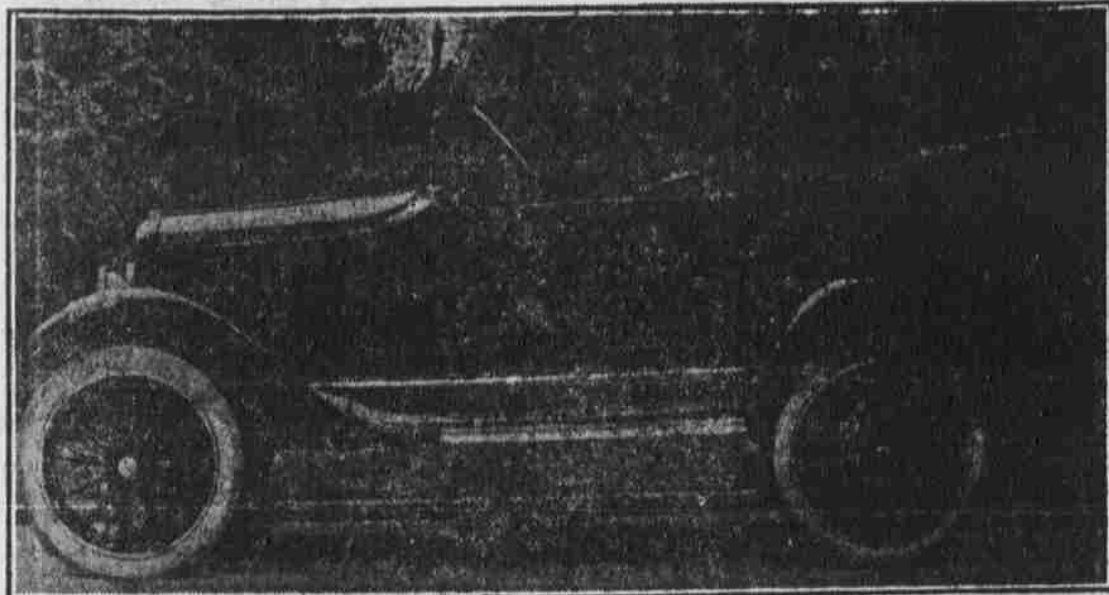
The Better Automobile Upholstery



Waterproof Sunproof and Remarkably Durable

THE DURATEX COMPANY

## New Overland Four Attracts Wide Attention.



## SAYS LIGHT CARS WILL BE FAVORED

John N. Willys Sees Record Market for Cars of Overland Four Type.

By JOHN N. WILLYS,  
President Willys-Overland Company.

The utility of the automobile for the business and social needs of city and town has been sharply accentuated by the war and its consequent development of greater traffic and transportation needs. To 1920 men look with a new hopefulness and new optimism in the automobile industry it seems quite certain that the new year will take its place among the greatest. The buying power of the public probably never has been so large. And the automobile has become as necessary as the telephone.

There is a waiting, ready market to-day for at least 1,500,000 to 2,000,000 cars. Manufacturers, despite enormous increases in output, have not stocked the market. The market, in fact, is still far undersold. No better proof of that condition can be offered than the automobile salesroom. To-day cars are sold there as rapidly as they are placed on the floor, and this condition means placing thousands of additional motor cars in service to increase the consumption of gasoline and oils.

It is conservatively estimated that there are more than 7,000,000 automobiles in use to-day. There are probably 500,000 motor trucks in use, and these totals will be greatly increased during 1920.



JOHN N. WILLYS.

The automobile shows this year will undoubtedly disclose more pointedly than any previous year the trend toward light, economical cars. In the 1920 models the public will find that the demand for motor cars of greater utility, finer quality of design and materials, with resultant economies, has been met to a marked degree.

Certain unmistakable conditions make

this trend toward the good light car imperative. Among these may be noted the growing congestion of traffic in cities and towns with parking space at a premium.

There is reason for that demand beyond the weekly garage bill. We are facing the fact that at least 40 per cent. of the estimated available petroleum supplies underground have been consumed. There are no known commercial substitutes for gasoline or for lubricating oils. These statements seem startling, but they are factually based by the department to emphasize the great need for conservation of gasoline and oils while extensive research seeks practical substitutes. Better motor cars is the immediate answer to the problem.

The problems confronting the automobile manufacturer who seeks to meet the public's wants may fall briefly under the following considerations:

1. Strictest operating and maintenance economies because of the era of high prices.
2. The increasing utility of the automobile in the development of all lines of business.
3. A 1920 good roads programme five to six times as large as any single year's programme before this, vastly enlarging the automobile field for business and recreation, and again demanding economical motor car operation so as to be within the reach of all.
4. Congestion of railroads and interurban lines, making the automobile more necessary and desirable than ever.
5. Increased traffic congestion in cities limiting the use of the big, heavy automobile.

In my opinion all these conditions—traffic, urban development, petroleum stock depletion—indicate that the light car is the car of to-day and the future.

## MILLER TIRE SALES SHATTER RECORDS

Exceeded Expectations by 50 Per Cent.—Plant Is Greatly Enlarged.

F. C. MILLHOFF.

The passing of the year 1919 marked the close of the biggest tire year in the history of the Miller Rubber Company from the standpoint of production and sales, according to F. C. Millhoff, general sales manager of that big Akron concern.

The annual report not having been officially completed at this writing, Mr. Millhoff was not in position to announce the exact figures of sales increase. He did say, however, that the tire sales growth during 1919 would amount to nearly 50 per cent. increase over the previous year and that it would exceed even the most optimistic expectations of Miller officials as announced in January, 1919.

But in spite of the healthy 1919 showing, Miller appears to have by no means finished its growing stages. The company, it is pointed out, has already added much new factory space and equipment, which will make possible a still greater growth in 1920.

There would seem from reports, is out to smash all of its previous records this coming year. This statement applies to both tire and rubber sundries. Also it is emphasized that Miller will not depart in the slightest way from its "long time policy of conservative expansion."

"The growth that we anticipate and are planning for," said Mr. Millhoff, "will be strictly due to an increased demand for our products."

When the general sales manager was asked what he considered the biggest factor in the sales growth of Miller tires he answered: "The quality of the tire itself. That same selling point which established such prominence for Miller tires in previous years—uniform mileage combined with the geared to the road tread—was undoubtedly a most influential factor in the creation of public demand."

### DEMAND FOR BUS BODIES GROWS.

"Truck manufacturers are just beginning to realize that the bus business is a desirable line for their agencies to enter. Representatives who have visited our plant and looked over our possibilities and the new factory which we are now adding are impressed with our facilities," said E. A. Cooper, president of the Paterson Vehicle Company, Paterson, N. J. "We manufacture bodies, and the one who has orders placed first gets first served. At the present time we are working to our capacity. When our large new factory is complete we expect again to be able to make deliveries of any of our standard styles or sizes within twenty-four hours after order is received."

## STRENGTH BEHIND SUPREME MOTORS

Greatest Care Exercised in Selection of Departmental Heads and Foremen.

The Supreme Motors Corporation, a new \$2,000,000 company which has erected a big plant at Warren, Ohio, to make four and six cylinder motors, is building one of the strongest organizations of the kind in the country under the leadership of General Manager A. H. Zimmerman.

General Manager Zimmerman is using the utmost care not only in the selection of engineers, production experts and other staff officers, but in the selection as foremen of the various departments of men of recognized standing. A motor or any other product is simply a reflection of the men who build that product, is General Manager Zimmerman's belief. In the building of Supreme motors there will be the strength of an organization of long years of experience in the motor field.

Mr. Zimmerman himself was directing head of the Continental Motors for many years, and he is known far and wide in the trade. Y. M. Smith, general superintendent at the Supreme plant, occupied a similar position with the Continental and later with the Hudson Motor Company, which latter position he held until he left to join the Supreme.

Under the direction of these two men the installations of the most modern equipment available have been made in the Warren plant, and the organization of the plant forces completed. For months the new motors have been under exhaustive tests so that when the product finally reaches the trade early in February it will be of known merit.

Another indication of the high caliber of the Supreme Motors force is contained in the appointment of Robert A. Weinhart, an automotive engineer of national reputation, as chief engineer in charge of both engineering and inspection departments. Mr. Weinhart, who came to the Supreme Motors Corporation from Continental, has been in



A. H. ZIMMERMAN.

the motor field since 1906, serving not only as engineer with several big companies but also having served as superintendent of machinery for the city of Chicago.

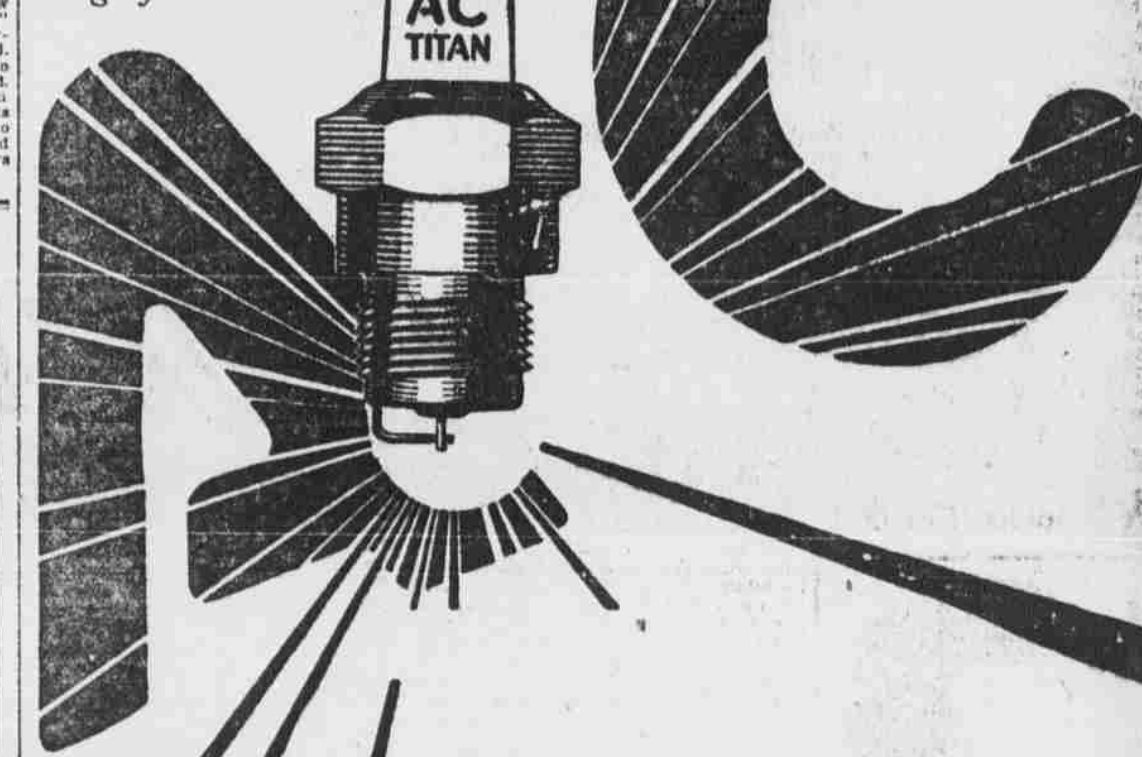
The policy of this company, as announced by General Manager Zimmerman, is to build motors so perfectly that they may be placed in the chassis of a car without the expense of additional testing and overhauling.

Production of the motor has been delayed by conditions resulting from the war, but Mr. Zimmerman announces that production will begin this month.

### COLD NO BAR TO LIBERTY SIX.

Complete vaporization of the gasoline in cold weather is assured in the Liberty Six through heating of the air drawn into the carburetor, and by a further heating of the mixture in the manifold through contact with a "glow" which is heated by the exhaust.

The Standard Spark Plug of the World



## Their Title Is Secure

The standard spark plug of the world!

This is the title won by AC's in many years of unerringly reliable service.

And their title is secure.

During the year of 1919, they were put to the test time and again with always the same result.

AC's stood up under the terrific strains imposed on them by automobile race drivers, airplane pilots and speed boat helmsmen.

They rode with Tommy Milton in the Duesenberg that crowded 113 miles into one fleeting hour.

They sparked the Curtiss Wasp that climbed with Roland Rohlf to the roof of the world.

They dashed to Gold Cup victory, in the American power boat championships, with Miss Detroit the Third.

In the light of these and many other notable achievements, can you wonder why AC Plugs are the choice of the leading passenger car, motor truck and tractor makers as standard equipment?

For unfailing ignition, equip your car with AC's. Their superiorities have been conclusively proven. You can rely on them to the utmost.

Champion Ignition Company, FLINT, Michigan

U. S. Pat. No. 1,125,772, April 12, 1916. U. S. Pat. No. 1,531,111, Feb. 12, 1917. Other Patents Pending.

## At the show the one display you cannot afford to miss is the Haynes exhibit

of personal recommendation by A. G. SEIBERLING, Vice-President and  
General Manager of The Haynes Automobile Company, Kokomo, Indiana

**I**N the Haynes exhibit there will be surprises for you—newness without oddness—a display that will hold your interest and attention because of its real value to you as a car owner or an intending one.

Two distinct new types of fashionable closed cars are included in the showing—the last word in extreme refinement of design and quiet luxury of adornment.

Character—character—character—always the keynote of Haynes design and construction, will be presented to you with a rare perfection.

The exhibit will demonstrate that the dominant Haynes principle, since the day Elwood Haynes presented America's first car twenty-seven years ago, has always been not merely to keep pace with progress, but to lead.

As a presentation of the choicest in modern motor car creation, the Haynes exhibit will excite as much interest and create as much comment as did the original Haynes car which pioneered the way for America in automobiles.

It is the one exhibit you cannot afford to miss—the first one you should see—the one you will always remember.

You will enjoy it as you can only enjoy the highest development of the genius of the designer, the engineer, the builder, and all the other experts whose craft and handiwork are called upon for your interest and enjoyment.

THE HAYNES AUTOMOBILE COMPANY, KOKOMO, INDIANA, U. S. A.

The Haynes display is Exhibit A-7, Grand Central Palace

# HAYNES

## CHARACTER CARS

Beauty ~ Strength ~ Power ~ Comfort

1893 ~ THE HAYNES IS AMERICA'S FIRST CAR ~ 1920